

Title (en)
Method of measuring non-linearity in magnetic recording/reproduction, device for magnetic recording/reproduction and LSI for magnetic recording/reproduction

Title (de)
Methode zum Messen von Nichtlinearitäten von Magnetaufzeichnung/-wiedergabe, Magnetaufzeichnungs-/wiedergabevorrichtung und LSI für Magnetaufzeichnung/-wiedergabe

Title (fr)
Méthode de mesure de non-linéarité dans l'enregistrement/la reproduction magnétique, dispositif pour l'enregistrement/la reproduction magnétique et LSI pour l'enregistrement/la reproduction magnétique

Publication
EP 1852853 A1 20071107 (EN)

Application
EP 07113925 A 20011129

Priority

- EP 01309999 A 20011129
- JP 2000365874 A 20001130
- JP 2001310365 A 20011005

Abstract (en)
A method of measuring non-linearity in the magnetic recording/reproduction of a medium comprises the steps of: measuring a first fifth harmonic component from a reproduced signal of a reference signal magnetically recorded in a medium; measuring a second fifth harmonic component from a reproduced signal for each of the plural kinds of to-be-measured signals magnetically recorded in said medium; and calculating a non-linear transition shift NLTS in the magnetic recording/reproduction from said first fifth harmonic component and from said second fifth harmonic component corresponding to each of the to-be-measured signals; wherein said reference signal is the ones obtained by cyclically and serially shifting, from an optional bit, the data of a bit-string pattern for magnetically recording the data into said medium by once effecting the magnetization and demagnetization for the same period of time, respectively; and wherein wherein bit-string patterns of said plural kinds of to-be-measured signals include: a first pattern of bit strings each including a tribit in which the magnetic inversion occurs continuously for three bits in each period of said magnetization and demagnetization; a second pattern of bit strings each including 2T in which the magnetic inversion occurs after an interval of two bits in each period of said magnetization and demagnetization; and a third pattern of bit strings including a bit constitution HTS in which the magnetic inversion occurs in a manner that the magnetization occurs in a direction opposite to the direction of magnetization of the record in the medium.

IPC 8 full level
G11B 5/00 (2006.01); **H04N 17/06** (2006.01); **G11B 5/02** (2006.01); **G11B 5/09** (2006.01); **G11B 5/455** (2006.01); **G11B 11/105** (2006.01); **G11B 20/10** (2006.01); **G11B 27/36** (2006.01); **G11B 20/18** (2006.01)

CPC (source: EP KR US)
G11B 5/02 (2013.01 - KR); **G11B 5/09** (2013.01 - EP US); **G11B 20/10009** (2013.01 - EP US); **G11B 27/36** (2013.01 - EP US); **G11B 11/1053** (2013.01 - EP US); **G11B 2005/001** (2013.01 - EP US); **G11B 2220/20** (2013.01 - EP US)

Citation (search report)
[X] PATENT ABSTRACTS OF JAPAN vol. 1998, no. 11 30 September 1998 (1998-09-30)

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 1211672 A2 20020605; **EP 1211672 A3 20060201**; **EP 1211672 B1 20090311**; DE 60137899 D1 20090423; EP 1852853 A1 20071107; EP 1852854 A1 20071107; JP 2002230709 A 20020816; JP 2006196175 A 20060727; JP 3870333 B2 20070117; KR 100808611 B1 20080307; KR 100808615 B1 20080303; KR 20020042504 A 20020605; KR 20070054610 A 20070529; US 2002105744 A1 20020808; US 6934100 B2 20050823

DOCDB simple family (application)
EP 01309999 A 20011129; DE 60137899 T 20011129; EP 07113925 A 20011129; EP 07113926 A 20011129; JP 2001310365 A 20011005; JP 2006068385 A 20060313; KR 20010075082 A 20011129; KR 20070043184 A 20070503; US 99793301 A 20011130